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**CHECKLIST OF THE SUBFAMILY AGANAINAE (LEPIDOPTERA:
EREBIDAE) FROM LAOS WITH NEW RECORDS FROM ADJACENT
COUNTRIES**

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Summary. The first data on the fauna of subfamily Aganainae (Erebidae) of Laos is presented. A list of 10 species is given, nine of which were discovered in this country for the first time. Additionally, eight species from Vietnam and five species from Myanmar were also recorded for the first time from these countries. A list of seven species which may be found in Laos and known from the border areas in Thailand, Cambodia, Vietnam, and China is given also.

Key words: moths, fauna, new records, Southeast Asia, Oriental region.

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Резюме. Приведены первые сведения о подсемействе Aganainae (Erebidae) Лаоса. Список включает 10 видов, из которых 9 впервые обнаружены в Лаосе. Кроме того, впервые для Вьетнама указываются 8 видов, а для Мьянмы – 5 видов. Также приведен список 7 видов, известных из пограничных районов Таиланда, Камбоджи, Вьетнама и Китая, которые могут быть найдены в Лаосе.

INTRODUCTION

Aganainae is a widespread moth subfamily inhabiting the tropical zone (Barlow, 1982; Holloway, 1998; Kononenko & Pinratana, 2005; Bayarsaikhan *et al.*, 2016). These moths are attracted to light sources in large amounts and, accordingly, are often present in collections. Despite this fact, there are few data on the fauna of several Asian countries. For example, 18 species are recorded in Thailand (Kononenko & Pinratana, 2005). The faunas of Myanmar, Vietnam and Laos are almost unknown, with only few published records (Kononenko & Pinratana, 2005; Bayarsaikhan *et al.*, 2016). Herein we provide an overview of the Aganainae fauna in Laos based on the collection of the Russian Museum of Biodiversity Hotspots (RMBH), Federal Center for Integrated Arctic Research, Russian Academy of Sciences (Arkhangelsk, Russia) and the available literature. Additionally, we present new records of these moths from Myanmar and Vietnam, and provide a list of species known from the adjacent regions of Thailand, Cambodia, Vietnam, and China.

MATERIAL AND METHODS

Moths were collected with the following ultraviolet lamps: Medium 250 WSB/E24-E23 250 Watt Self Ballast Mercury Vapor-Clear (USA) and F15W/T8/Quantum Black Light (Germany). Photos of the specimens were taken with a digital camera (Canon EOS 80D) with Canon EF 100mm f/2.8L Macro IS USM (Canon, Japan). The materials are deposited in the RMBH.

CHECKLIST OF AGANAINAE FROM LAOS WITH NEW RECORDS FROM ADJACENT COUNTRIES

Genus *Peridrome* Walker, 1854

Peridrome subfascia (Walker, 1854)

Figs 1, 2

MATERIAL EXAMINED. **Laos:** Vientiane Province, Phatang village, mountain forest, 19°03'52"N, 102°25'41"E, 22–28.IV 2016, 1♀, Spitsyn leg.; Vientiane Province, Phatang village, mountain bamboo forest, 19°04'55"N, 102°26'12"E, 23–28.IV 2016, 1♂, Spitsyn leg.; Luang Prabang Province, Luang Prabang city, mountain monsoon forest, 19°51'54"N, 102°07'56"E, 30.IV 2016, 2♂, 2♀, Spitsyn leg.

DISTRIBUTION. Laos, Cambodia, Thailand, Malaysia, India, Indonesia, Philippines, and Taiwan.

REMARK. First record from Laos.

Genus *Neochera* Hübner, [1819]

Neochera marmorea (Walker 1856)

Fig. 3

MATERIAL EXAMINED. **Laos:** Vientiane Province, Phatang village, mountain bamboo forest, 19°04'55"N, 102°26'12"E, 23–28.IV 2016, 1 ex., Spitsyn leg.

DISTRIBUTION. Laos, Cambodia, Thailand, Malaysia, North India, and Indonesia (Sumatra, Java, and Borneo).

REMARK. First record from Laos.

Neochera dominia (Cramer, 1780)

Fig. 4

MATERIAL EXAMINED. **Laos:** Vientiane Province, Phatang village, mountain bamboo forest, 19°04'55"N, 102°26'12"E, 23–28.IV 2016, 2 ex., Spitsyn leg.; Oudomsay Province, Oudomsay city, tropical forest with bamboo, 20°39'04"N, 101°58'18"E, 04-06.V.2016, 1 ex., Spitsyn leg.; Luang Namtha Province, Viangphoukha town, 20°40'55"N, 101°04'46"E, 24.V 2016, 1 ex., Spitsyn leg.; Luang Prabang Province, Luang Prabang city, mountain monsoon forest, 19°51'54"N, 102°07'56"E, 30.IV.2016, 1 ex., Spitsyn leg.; Oudomsay Province, Oudomsay city, damaged forest on border of the city, 20°39'46"N, 101°58'14"E, 01–03.V 2016, 3 ex., Spitsyn leg.; **Vietnam:** Thanh Hoa Province, Tan Thanh village, mountain tropical forest with bamboo, 19°37'18"N, 105°17'54"E, 21–30.III 2016, 1 ex., Spitsyn leg.; Vinh Phuc Province, Phuc Yen District, Ngoc Thanh Commune, Me Linh Station, mountain tropical forest, 21°23'03"N, 105°42'44"E, 01–13.IV 2016, 2 ex., Spitsyn leg.

DISTRIBUTION. Laos, Vietnam, Cambodia, Thailand, Myanmar, India, South China, Taiwan, Indonesia, Philippines, and northern Australia.

REMARK. First records from Laos and Vietnam.



Figs 1–6. Aganainae from Laos. 1, 2 – *Peridrome subfascia*: 1 – male, 2 – female; 3 – *Neochera marmorea*, female, 4 – *N. dominia*, male, 5, 6 – *N. inops*, 5 – male, 6 – female.

***Neochera inops* (Walker, 1854)**

Figs 5, 6

MATERIAL EXAMINED. **Laos:** Vientiane Province, Phatang village, mountain forest, 19°03'52"N, 102°25'41"E, 22–28.IV 2016, 1 ex., Spitsyn leg.; Luang Namtha Province, Muang Long town, tropical forest, 20°57'25"N, 100°49'20"E, 11–22.V 2016, 1 ex., Spitsyn leg.; Luang Namtha Province, Viangphoukha town, tropical forest, 20°40'58"N, 101°03'28"E, 23.V 2016, 4 ex., Spitsyn leg.; Oudomsay Province, Oudomsay city, tropical forest, 20°38'52"N, 101°58'59"E, 07.V 2016, 1 ex., Spitsyn leg.; **Vietnam:** Vinh Phuc Province, Phuc Yen District, Ngoc Thanh Commune, Me Linh Station, mountain tropical forest, 21°23'03"N, 105°42'44"E, 01–13.IV 2016, 1 ex., Spitsyn leg.

DISTRIBUTION. Laos, Vietnam, Cambodia, Thailand, Myanmar, India, Bangladesh, South China, Malaysia, Indonesia (Sumatra, Java, Borneo), and Philippines (Palawan).

REMARK. First records from Laos and Vietnam.

Genus *Asota* Hübner, [1819]

Asota plana (Walker, 1854)

Figs 7, 8

MATERIAL EXAMINED. **Laos:** Vientiane Province, Phatang village, mountain bamboo forest, 19°04'55"N, 102°26'12"E, 23–28.IV 2016, 1♂, Spitsyn leg.; Luang Namtha Province, Muang Long town, tropical forest, 20°57'25"N, 100°49'20"E, 11–22.V.2016, 1♀, Spitsyn leg.; **Myanmar:** Kachin State, Wasandum village (near school), mountain rainforest with bamboo patches at the river valley, 27°29'42"N, 97°11'24"E, 18–19.III 2014, 1♀, Bolotov and Spitsyn leg.

DISTRIBUTION. Laos, Vietnam, Cambodia, Thailand, Myanmar, India, Nepal, Sri Lanka, Indonesia, New Guinea, South China, Taiwan, and Japan.

REMARK. First records from Laos and Myanmar.

Asota egens (Walker, 1854)

Figs 9, 10

MATERIAL EXAMINED. **Laos:** Vientiane Province, Phatang village, mountain forest, 19°03'52"N, 102°25'41"E, 22–28.IV 2016, 1♀, Spitsyn leg.; Luang Namtha Province, Muang Long town, tropical forest, 20°57'25"N, 100°49'20"E, 11–22.V 2016, 1♂, Spitsyn leg.; Vientiane Province, Phatang village, mountain bamboo forest, 19°04'55"N, 102°26'12"E, 23–28.IV 2016, 2♂, 2♀, Spitsyn leg.; **Vietnam:** Thanh Hoa Province, Tan Thanh village, mountain tropical forest with bamboo, 19°37'18"N, 105°17'54"E, 21–30.III 2016, 4♀, Spitsyn leg.; Vietnam, Thanh Hoa Province, Tan Thanh village, mountain tropical forest with rice fields of the sides, 19°37'47"N, 105°18'30"E, 23–25.III 2016, 1♂, Spitsyn leg.; Vinh Phuc Province, Phuc Yen District, Ngoc Thanh Commune, Me Linh Station, mountain tropical forest, 21°23'03"N, 105°42'44"E, 01–13.IV 2016, 1♀, Spitsyn leg.; **Myanmar:** Kachin State, Wasandum village (near school), mountain rainforest with bamboo patches at the river valley, 27°29'42"N, 97°11'24"E, 18–19.III 2014, 2♀, Bolotov and Spitsyn leg.; Kachin State, Indawgyi Lake, floodplain habitat (herb pasture) on the lake shore, 25°05'53"N, 96°17'17"E, 23–25.III 2014, 1♀, Bolotov and Spitsyn leg.

DISTRIBUTION. Laos, Vietnam, Cambodia, Thailand, Myanmar, India, Nepal, South West China, Taiwan, Japan, Indonesia, and New Guinea.

REMARK. First records from Laos, Myanmar, and Vietnam.

Asota caricae (Fabricius, 1775)

Figs 11, 12

MATERIAL EXAMINED. **Laos:** Luang Prabang Province, Luang Prabang city, mountain monsoon forest, 19°51'54"N, 102°07'56"E, 30.IV 2016, 1♂, 1♀, Spitsyn leg.; Oudomsay Province, Oudomsay city, damaged forest on border of the city, 20°39'46"N, 101°58'14"E, 01–03.V 2016, 1♂, Spitsyn leg.; Oudomsay Province, Oudomsay city, tropical forest with bamboo, 20°39'04"N, 101°58'18"E, 04–06.V 2016, 4♂, 1♀, Spitsyn leg.; Oudomsay Province, Oudomsay city, tropical forest, 20°38'52"N, 101°58'59"E, 07.V 2016, 1♂, Spitsyn leg.; Luang Namtha Province, Muang Long town, tropical forest, 20°57'25"N, 100°49'20"E, 11–22.V 2016, 1♂, 1♀, Spitsyn leg.; Luang Namtha Province, Viangphoukha town, tropical forest, 20°40'58"N, 101°03'28"E, 23.V 2016, 1♂, 2♀, Spitsyn leg.; **Vietnam:** Song Tranh-2, tropical forest, 15°19'42"N, 108°08'58"E, 09–20.XI 2013, 1♀, Antonovskaya leg.

DISTRIBUTION. Laos, Vietnam, Cambodia, Thailand, India, Nepal, South West China, Taiwan, Japan, Indonesia, Australia, and Vanuatu.

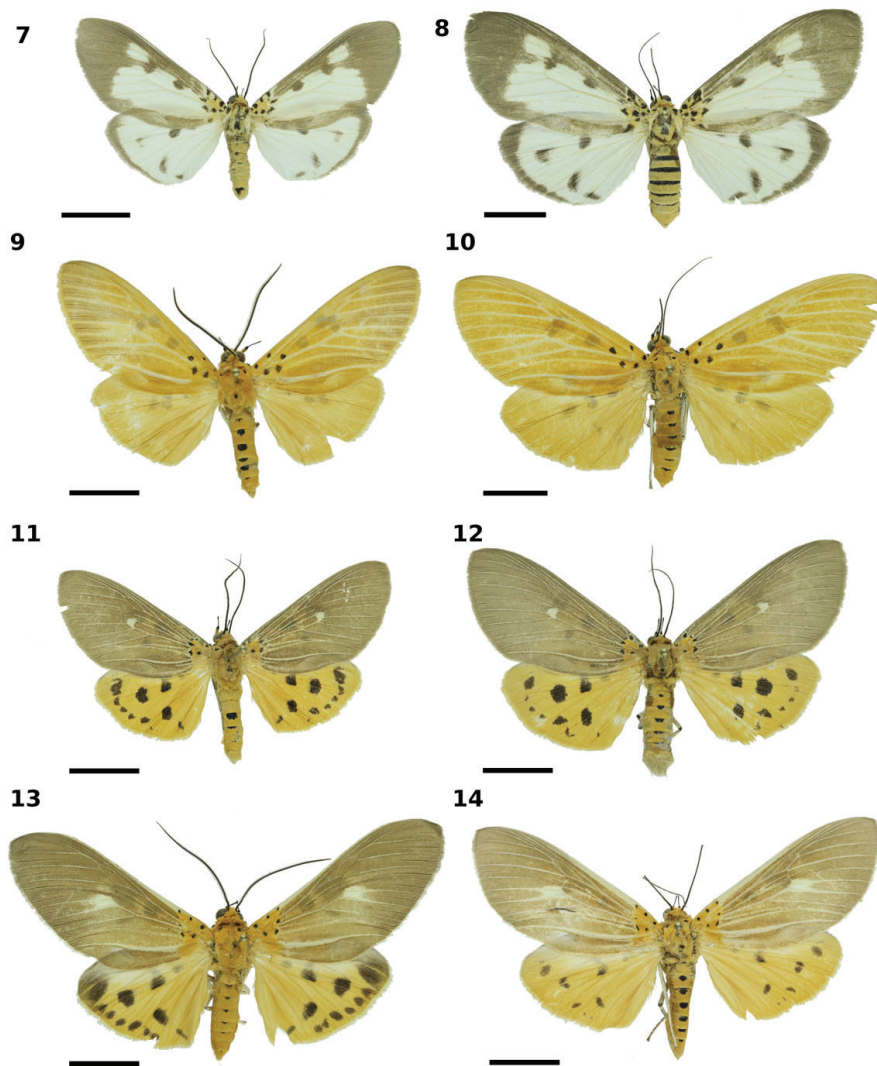
REMARK. First records from Laos and Vietnam.

***Asota producta* (Butler, 1875)**

Figs 13, 14

MATERIAL EXAMINED. **Laos:** Vientiane Province, Phatang village, mountain forest, 19°03'52"N, 102°25'41"E, 22–28.IV 2016, 1♀, Spitsyn leg.

DISTRIBUTION. Laos, Vietnam, Cambodia, Thailand, Malaysia, Myanmar, India, Sri Lanka, Nepal, South China, and Indonesia.



Figs 7–14. *Asota* spp. from Laos. 7, 8 – *A. plana*: 7 – male, 8 – female; 9, 10 – *A. egens*: 9 – male, 10 – female; 11, 12 – *A. caricae*: 11 – male, 12 – female; 13, 14 – *A. producta*: 13 – male, 14 – female.

***Asota plaginota* (Butler, 1875)**

Figs 15–18

MATERIAL EXAMINED. **Laos:** Vientiane Province, Phatang village, mountain forest, 19°03'52"N, 102°25'41"E, 22–28.IV 2016, 5♂ Spitsyn leg.; Vientiane Province, Phatang village, mountain bamboo forest, 19°04'55"N, 102°26'12"E, 23–28.IV 2016, 4♂, Spitsyn leg.; Luang Prabang Province, Luang Prabang city, mountain monsoon forest, 19°51'54"N, 102°07'56"E, 30.IV 2016, 1♂, Spitsyn leg.; Oudomsay Province, Oudomsay city, damaged forest on border of the city, 20°39'46"N, 101°58'14"E, 01–03.V 2016, 1♂, 1♀, Spitsyn leg.; Luang Namtha Province, Muang Long town, tropical forest, 20°57'29"N, 100°49'41"E, 10–21.V 2016, 1♂, Spitsyn leg.; Luang Namtha Province, Muang Long town, tropical forest, 20°57'25"N, 100°49'20"E, 11–22.V 2016, 2♂, 1♀, Spitsyn leg.; Luang Namtha Province, Viangphoukha town, tropical forest, 20°40'58"N, 101°03'28"E, 23.V 2016, 1♀, Spitsyn leg.; Luang Namtha Province, Viangphoukha town, tropical forest, 20°40'58"N, 101°04'42"E, 24–25.V 2016, 1♂, Spitsyn leg.; **Vietnam:** Thanh Hoa Province, Tan Thanh village, mountain tropical forest with bamboo, 19°37'18"N, 105°17'54"E, 21–30.III 2016, 1♂, 2♀, Spitsyn leg.; Vinh Phuc Province, Phuc Yen District, Ngoc Thanh Commune, Me Linh Station, mountain tropical forest, 21°23'03"N, 105°42'44"E, 01–13.IV 2016, 1♂, 2♀, Spitsyn leg.; **Myanmar:** Mandalay Region, felling in mountain monsoon forest close to a river valley 22°05'56"N, 96°37'26"E, 11.III 2014, 3♂, 3♀, Bolotov and Spitsyn leg.; Kachin State, Malaria village, boundary between mountain rainforest and grass pastures, 27°34'12"N, 97°22'18"E, 14.III 2014, 1♂, 3♀, Bolotov and Spitsyn leg.; Kachin State, Wasandum village (near school), mountain rainforest with bamboo patches at the river valley, 27°29'42"N, 97°11'24"E, 18–19.III 2014, 1♂, 1♀, Bolotov and Spitsyn leg.; Kachin State, Masadun village, mountain rainforest with bamboo patches at the river valley 27°29'27"N, 97°20'06"E, 13.III 2014, 1♀, Bolotov and Spitsyn leg.; Kachin State, Malaria village, dry monsoon forests with rhododendron wastelands, 27°34'26"N, 97°22'29"E, 15.III 2014, 1♂, Bolotov and Spitsyn leg.

DISTRIBUTION. Laos, Vietnam, Cambodia, Thailand, Myanmar, India, Sri Lanka, Indonesia.

REMARKS. First records from Laos, Vietnam, and Myanmar. Morphologically variable species. In Laos, we found three forms with different marking patterns in the marginal area of the hindwing as follows: (1) with a number of black spots (typical form known from Sri Lanka) (Fig. 16); (2) without black spots (Figs 17–18; form known from Thailand and Cambodia; Kononenko & Pinratana, 2005; Bayarsaikhan *et al.*, 2016); and (3) with black spots merging into a black stripe running along the hindwing edge (rare form; Fig. 15).

***Asota heliconia* (Linnaeus, 1758)**

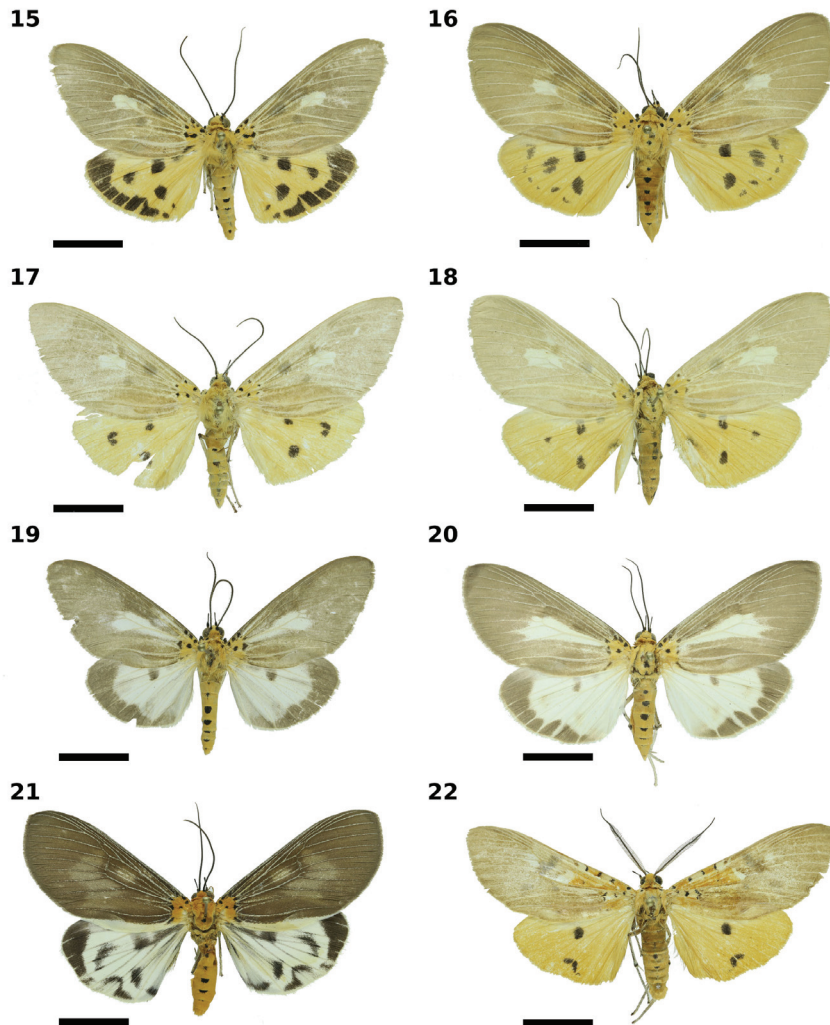
Figs 19, 20

MATERIAL EXAMINED. **Laos:** Vientiane Province, Phatang village, mountain bamboo forest, 19°04'55"N, 102°26'12"E, 23–28.IV 2016, 3♂, 1♀, Spitsyn leg.; Oudomsay Province, Oudomsay city, tropical forest, 20°38'52"N, 101°58'59"E, 07.V 2016, 1♀, Spitsyn leg.; Luang Namtha Province, Muang Long town, tropical forest, 20°57'29"N, 100°49'41"E, 10–21.V 2016, 1♂, 2♀, Spitsyn leg.; Luang Namtha Province, Muang Long town, tropical forest, 20°57'25"N, 100°49'20"E, 11–22.V 2016, 2♂, 1♀, Spitsyn leg.; Luang Namtha Province, Viangphoukha town, 20°40'55"N, 101°04'46"E, 24.V 2016, 1♀, Spitsyn leg.; **Vietnam:** Thanh Hoa Province, Tan Thanh village, mountain tropical forest with bamboo, 19°37'18"N, 105°17'54"E, 21–30.III 2016, 1♂, 3♀, Spitsyn leg.; **Myanmar:** Kachin State, Malaria village, boundary between mountain rainforest and grass pastures, 27°34'12"N, 97°22'18"E, 14.III

2014, 2♂, Bolotov and Spitsyn leg.; Kachin State, Malaria village, dry monsoon forests with rhododendron wastelands, 27°34'26"N, 97°22'29"E, 15.III 2014, 1♀, Bolotov and Spitsyn leg.; Kachin State, Wasandum village (near school), mountain rainforest with bamboo patches at the river valley, 27°29'42"N, 97°11'24"E, 18–19.III 2014, 1♀, Bolotov and Spitsyn leg.

DISTRIBUTION. Laos, Vietnam, Thailand, Myanmar, India, South China, Taiwan, Japan, Indonesia, Bismark Archipelago, Andamanes, Nicobares, Solomom Isl., Philippines, and Australia.

REMARK. First records from Laos, Myanmar and Vietnam.



Figs 15–22. *Asota* spp. from Laos. 15–18 – *Asota plaginota*: 15, 17 – male, 16, 18 – female; 19 – *A. heliconia*, male; 20 – *A. heliconia*, female, 21 – *A. paphos*, female, 22 – *A. ficus*, male.

**LIST OF AGANAINAE SPECIES KNOWN FROM THE BORDER AREAS OF
THAILAND, CAMBODIA, VIETNAM, AND CHINA**

***Agape chloropyga* (Walker, 1854)**

DISTRIBUTION. India, South China, Thailand, Cambodia, Philippines, Indonesia, and northern Australia.

***Peridrome orbicularis* (Walker, 1854)**

DISTRIBUTION. India, China, Myanmar, Thailand, Cambodia, Indonesia, Philippines.

***Euplocia memblaria* (Cramer, 1780)**

DISTRIBUTION. India, Myanmar, South China, Japan, Thailand, Cambodia, Malaysia, Indonesia, and Philippines.

***Asota paphos* (Fabricius, 1787)**

Fig. 21

MATERIAL EXAMINED. Vietnam: Thanh Hoa Province, Tan Thanh village, mountain tropical forest with bamboo, 19°37'18"N, 105°17'54"E, 21–30.III 2016, 3 ex., Spitsyn leg.

DISTRIBUTION. North India, China, Thailand, Cambodia, Vietnam, and Indonesia.

REMARK. First record from Vietnam.

***Asota ficus* (Fabricius, 1775)**

Fig. 22

MATERIAL EXAMINED. **Vietnam:** Thanh Hoa Province, Tan Thanh village, mountain tropical forest with bamboo, 19°37'18"N, 105°17'54"E, 21–30.III 2016, 2 ex., Spitsyn leg.; Vinh Phuc Province, Phuc Yen District, Ngoc Thanh Commune, Me Linh Station, mountain tropical forest, 21°23'03"N, 105°42'44"E, 01–13.IV 2016, 1 ex., Spitsyn leg.; **Myanmar:** Mandalay Region, felling in mountain monsoon forest close to a river valley 22°05'56"N, 96°37'26"E, 11.III 2014, 1 ex., Bolotov and Spitsyn leg.

DISTRIBUTION. India, Nepal, Myanmar, Thailand, Vietnam, China, Taiwan, Japan.

REMARK. First records from Vietnam and Myanmar.

***Asota turtuosa* More, 1872**

DISTRIBUTION. India, Nepal, China, Taiwan, and Thailand.

***Asota subsimilis* (Walker, 1864)**

DISTRIBUTION. Thailand, Malaysia, and Cambodia.

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